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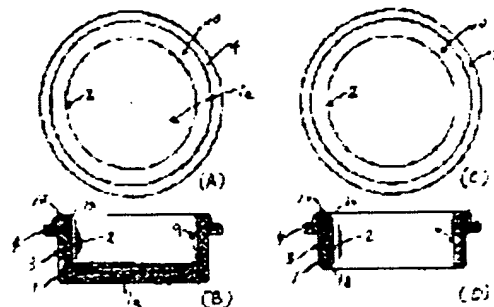
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## (54) PLASMA-RESISTANT MEMBER AND MANUFACTURE THEREOF

(57)Abstract:

**PROBLEM TO BE SOLVED:** To obtain a plasma-resistant member which is uniformly coated with a film that is hardly separated from the peripheral part of the member, by a method wherein the plasma-resistant member is formed like a cylinder whose one end is sealed up or both ends are open, a plasma-resistant film is provided to the inner circumferential surface and sealed end of the cylinder, and a protrudent part is provided to the outer circumferential surface of the cylinder.

**SOLUTION:** A cylinder 1 is possessed of an inner circumferential surface 2, an outer circumferential surface 3, a projection 4, and an edge face (sealed face) 10, where a plasma-resistant film 9 is formed on the inner circumferential surface 2 and the sealed face 10. Both the inner circumferential surface 2 and the sealed face 10 are exposed to plasma, and the projection 4 different from the sealed face 10 in height is provided to the outer circumferential surface 3 so as to be located separately from the sealed face 10 that is exposed to a plasma atmosphere. The projection 4 is used as a support when a film is formed, and a sealing elastic member can be inserted when the cylinder 1 is mounted on a device. Moreover, the plasma-resistant film 9 is formed of one or more elements selected out of silicon carbide, boron carbide, silicon nitride,



aluminum nitride, YAG, MgAl<sub>2</sub>O<sub>4</sub> or the like.

#### LEGAL STATUS

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